

## Author Index

- Adams, S. R., 859  
 Andrews, G. R., 923  
 Annevelink, J., 757  
 Appel, A. W., 417  
 Appelbe, B., 197  
 Ardö, A., 291  
 Atkinson, M. P., 171
- Bishop, J. M., 859  
 Bishop, M., 729  
 Bovey, J. D., 647  
 Bracha, G., 783  
 Briggs, J. S., 439  
 Broom, M. A., 561  
 Brown, C. A., 105  
 Bullers, Jr., W. I., 701  
 Butler, G., 117
- Casey, L. M., 741  
 Chan, F. T., 227  
 Chen, T. Y., 227  
 Cole, R., 387  
 Colvin, M. A., 885  
 Connolly, M., 533  
 Cormack, G. V., 413  
 Cowie, J. R., 719  
 Crowe, M. K., 455
- Daunov, N., 187  
 Davidson, J. W., 801  
 Davis, M., 61  
 Dewhurst, S. C., 503  
 Dewilde, P., 757
- Engmann, R., 623
- Fairbairn, J., 379  
 Foxley, E., 485  
 Fraser, C. W., 801
- Gammage, N. D., 741  
 Glaser, H. W., 1  
 Gondzio, M., 215  
 Gorlen, K. E., 899  
 Gudes, E., 783  
 Gutknecht, J., 469
- Hansen, P. B., 29, 267  
 Hayashi, T., 17  
 Honeyman, P., 51  
 Hopkins, T. R., 561  
 Horspool, R. N., 369, 413  
 Huang, J. C., 159  
 Hughes, J. G., 533
- Jalote, P., 847
- Kamel, R. F., 741  
 Katzenelson, J., 79  
 Kendall, M. J., 117  
 Koopman, P. W. M., 609  
 Kourie, D. G., 423  
 Kulkarni, K. G., 171
- Levy, M. R., 369  
 Lins, R. D., 547  
 Lirov, Y., 187  
 Lord, S. P., 575
- McDonald, C. S., 635  
 Messinger, E., 61  
 Meyer, C., 61  
 Miller, B. P., 277  
 Mulders, M. A., 521  
 Munakata, T., 399
- Parseghian, P. E., 51  
 Pashtan, A., 309  
 Perrott, R. H., 663
- Pike, R., 813  
 Powell, M. L., 277  
 Powell, M. S., 241  
 Presotto, D. L., 277  
 Pritchard, D. J., 859  
 Purdin, T. D. M., 923  
 Purdom, Jr., P. W., 105
- Rasmussen, J. B., 197  
 Reynolds, C. F., 513  
 Roper, M., 135  
 Rowe, L. A., 61
- Schlichting, R. D., 923  
 Sewry, D. A., 521  
 Smith, J. B., 5  
 Smith, P., 135  
 Spirakis, C., 61  
 Stepney, S., 575  
 Strominger, A., 79  
 Supowit, K. J., 417
- Thimbleby, H., 351  
 Thompson, P., 1  
 Tuan, A., 61
- van Biljon, W. R., 521  
 van Hoeve, F., 623  
 van Katwijk, J., 319
- Wadler, P., 595  
 Weaver, A. C., 885  
 Weber, M., 345  
 Weiss, S. F., 5
- Yeh, D. Y., 399  
 Zarea-Aliabadi, A., 663

## Key Word Index

- Abstract data store, 241
- Abstract data type, 847
- Abstract data types, 757
- Access control, 575
- Ada, 197, 291, 319, 741
- Ada tasking, 859
- Addressing, 387
- Algebraic simplification, 105
- Application generation, 623
- Automatic program construction, 187
- Automatic programming, 623
- Axiomatic specifications, 847
  
- Back-end, 291
- Berkeley Unix, 923
- Breakpoint, 215
  
- C, 503
- C++, 503
- C++ programming language, 899
- Caches, 813
- Categorical combinators, 547
- Code generation, 319, 801, 417
- Code optimization, 417
- Colour, 513
- Command interpreters, 685
- Command language, 783
- Communicating agents, 29, 267
- Communication, 117
- Compilation techniques, 469
- Compile-time comments, 79
- Compiler extension, 533
- Compilers, 319, 801
- Complexity, 547
- Compression, 413
- Computer-aided design, 783
- Concurrency, 859
- Concurrent programming, 29, 267
- Conditional breakpoint, 215
- Cricket, 439
- Cross development, 663
- CSP, 423
  
- DAPLEX, 171
- Data dictionary, 187
- Data flow analysis, 227
- Data management, 757
- Data structures, 241
- Data types, 241
- Database management systems, 187
- Database programming language, 533
- dBase III, 701
- Debugger, 215
- DEMOS, 277
- Destructor, 503
- Dictionaries, 719
- Digital typesetting, 17
- Direct implementation, 847
- Directed graph layout algorithms, 61
- Distributed operating system(s), 277, 741
- Distributed programming, 859
- Distributed systems, 923
- Dynamic binding, 899
- Dynamic compilation, 455
  
- Electronic mail, 51
- Encapsulation, 899
- Enhanced C, 79
- Executable specifications, 309
- Execution monitor, 729
- Expression trees, 417
- Extensible syntax, 379
  
- Fault tolerance, 345
- File replication, 923
- File systems, 923
- Formal model, 575
- Format grammar, 5
- Fortran 77, 561
- Full-text retrieval, 5
- Functional data model, 171
- Functional languages, 595
- Functional programming, 379, 547, 609, 685
  
- Garbage collection, 1, 595
- Graphical workstation, 647
- Graphics workstation, 561
  
- Hashing, 413
- Heterogeneity, 387
  
- ICL PERQ, 561
- Incremental compilation, 455
- Inheritance, 899
- Input/output channels, 29
- Instruction-level simulator, 309
- Interactive debugging, 647
- Interactive environments, 685
- Interactive programs, 609
- Interactive query language, 171

- Interconnection, 387
- Intermediate language, 663
- Interpreter, 663
- Interrupts, 197
- JSP, 135
- Knuth-Bendix procedure, 105
- Lambda calculus, 547
- Language, 485
- Language implementation, 267
- Language syntax, 513
- Lazy evaluation, 595, 609
- Left outer join, 701
- Lexical analysis, 369
- Links, 277
- List processing, 1
- Local area networks, 741
- Location transparency, 923
- LR-parsing tables, 413
- Macro data abstractions, 79
- Matching, 105
- Master-detail records, 701
- Message systems, 885
- Message-based, 277
- Metadata, 171
- MicroCODIL, 513
- Microcomputer, 215
- Modula-2, 469
- Monitor, 117
- Multi-microprocessors, 859
- Multiple sequential lists, 399
- Multiple stacks, 399
- Multiprocessing, 345
- Music, 485
- Network(s), 51, 277, 387, 575
- Network data bases, 187
- Numerical software, 561
- Object-oriented, 757
- Object-oriented programming, 623, 899
- Operating system, 345
- OS/MVS environment, 17
- Parallel programming, 117
- Parsing, 379
- Pascal, 227, 439
- Patching, 729
- Pattern-matching code generator, 521
- Peep-hole optimization, 801
- Persistent data, 241
- Persistent programming, 171
- Polling, 29
- Portability, 801
- Preprocessor, 663
- Process, 117
- Profiling, 729
- Program browsers, 61
- Program call-graphs, 61
- Program design, 351
- Program generators, 439
- Program instrumentation, 227
- Program testing, 135, 227
- Programming languages, 29, 267
- Programming methodology, 159
- Prolog, 309, 423, 455, 575
- Protocols, 387
- PS-algol, 171
- Rapid prototyping, 159, 309, 847
- Real-time, 197
- Recursion, 29
- Reference counts, 1
- Register allocation, 521, 417
- Regular expressions, 813
- Regular languages, 369
- Relational algebra, 533
- Relational database, 701
- Relational model, 533
- Remote procedure call, 741
- Rendezvous, 117, 741
- Report generation, 187
- Retargeting, 291, 801
- Reversing programs, 439
- Routing algorithms, 51
- Scanners, 369
- Scientific software, 561
- Scope, 503
- Sets, 757
- Simulator performance, 309
- Single-step, 215
- Smalltalk-80 classes, 899
- Software engineering, 159, 783
- Software tools, 159, 369, 561
- Software transportation, 17
- Space leak, 595
- Sparse matrices, 413
- Sports, 439
- Storage allocation strategies, 399
- Structural testing method, 135
- SUN, 561
- Supercomputers, 663
- Symbol table, 503
- Symbolic debugging, 79
- Synchronization, 117
- System architecture, 469
- Tasks, 197
- Terminal independence, 351
- TEX82, 17
- Text editor(s), 609, 813
- Text formatting, 5, 17

Token ring networks, 885  
Toolpack, 561  
Trace generator, 423  
Transputers, 859  
Tries, 719  
Troff, 485  
Turner's combinators, 547  
Typesetting, 485  
  
Undo, 439, 813  
UNIX, 455, 485, 729  
UNIX shell, 685

User friendly systems, 513  
User interface(s), 241, 647, 783  
  
Validation, 291  
Variable length records, 719  
VDU package, 351  
Verification and validation, 135  
Virtual modes, 859  
  
Windows, 783  
  
Z specification, 575

